

# ABSTRACT OF THE INVENTION

The invention relates to an image encoding/decoding method, apparatus thereof and a recording medium in which a program therefor is recorded, whereby the encoding/decoding can be obtained with high image quality at high speed. In an image encoding method which comprises producing a DC image composed of each block mean value by dividing an image data per B pixel into a block, making a part of said DC image a DC nest, and where the differential vector  $\langle d_j \rangle$  which is obtained by separating the DC value  $DC_j$  from the pixel block  $\langle R_j \rangle$  to be encoded is over an allowable value Z, calculating one or more orthogonal basis  $(\alpha_k \langle V_k \rangle)$ , to which the differential vector is approximated, by the adaptive orthogonal transform (AOT) using the DC nest, each of the lowest n ( $n = \log_2 B$ ) bits of base extraction blocks  $\langle U_i \rangle$  which are down-sampled from the DC nest is set to 0. Further, base extraction vectors  $\langle u_i \rangle$  are produced by separating a block mean value  $a_i$  from the base extraction blocks  $\langle U_i \rangle$ .